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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/808,563	03/25/2004	Jun Moroo	1341.1198	5077

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EXAMINER	
THOMPSON, JAMES A	

ART UNIT	PAPER NUMBER
2625	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/808,563	MOROO ET AL.	
	Examiner	Art Unit	
	James A. Thompson	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 February 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1,4-6,13,16-18,21 and 24* is/are allowed.

6)☒ Claim(s) *7,10-12 and 22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, filed 26 February 2010, are persuasive in part and not persuasive in part.

Firstly, Examiner notes that the cancellation of claims 19, 20 and 23 renders the outstanding prior art rejections moot. Thus, the rejections of claims 19, 20 and 23 under 35 U.S.C. § 103(a) are withdrawn.

Applicant's arguments with respect to the rejections of claims 7, 8-12 and 22 are not persuasive. Applicant's corresponding amendments do not render the recited processes statutory. Including the language "using a processor" is only a nominal recitation and does not tie the process to a *particular* machine, as required by the machine-or-transformation test of *In re Bilski*.

Applicant's arguments with respect to the rejections of claims 13, 16-18 and 24 are persuasive. Therefore, the rejections of claims 13, 16-18 and 24 under 35 U.S.C. § 101 are withdrawn.

Conclusion: Since there are outstanding rejections and there are no new grounds of rejection, **the present action is made final.**

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 7 and 10-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Supreme Court precedent[1] and recent Federal Circuit decisions[2] indicate that a statutory "process" under 35 U.S.C. 101 must (1) be tied to another statutory category (such as a particular apparatus), or (2) transform underlying subject matter (such as an article or material) to a different state or thing.

Claim 7 recites an image data processing method. However, the method comprises a series of digital data processing steps which simply manipulate digital data. The method is not tied to any particular apparatus, nor does the method transform any underlying subject matter to a different state or thing. The method merely performs computations upon digital data resulting in other digital data. While the language of claim 7 states the embedding is performed "using a processor," this is merely a nominal recitation and does not tie claim 7 to a *particular* machine, as required by *In re Bilski*. There is no transformation of an article or material to a different state or thing. Thus, claim 7 is not a statutory process.

Claims 10-12 each ultimately depend from claim 7, and are therefore also rejected under 35 U.S.C. 101.

4. Claim 22 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 22 recites an image data processing method. However, the method comprises a series of digital data processing steps which simply manipulate digital data. The method is not tied to any particular apparatus, nor does the method transform any underlying

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[1] *Diamond v. Diehr*, 450 U.S. 175, 184 (1981); *Parker v. Flook*, 437 U.S. 584, 588 n.9 (1978); *Gottschalk v. Benson*, 409 U.S. 63, 70 (1972); *Cochrane v. Deener*, 94 U.S. 780, 787-88 (1876).

subject matter to a different state or thing. The method merely performs computations upon digital data resulting in other digital data. While the language of claim 22 states the embedding is performed "using a processor," this is merely a nominal recitation and does not tie claim 22 to a *particular* machine, as required by *In re Bilski*. There is no transformation of an article or material to a different state or thing. Thus, claim 22 is not a statutory process.

Allowable Subject Matter

5. Claims 1, 4-6 and 21 are allowed. Claims 7, 10-13, 16-18, 22 and 24 contain allowable subject matter, but are rejected above for reasons other than prior art.

The following is an examiner's statement of reasons for allowance and reasons for indicating allowable subject matter:

Independent claim 1 recites an image data processing apparatus for embedding coded data. The apparatus comprises:

(1) a dividing unit that divides image data into a plurality of blocks,

(2) a block extracting unit that extracts a pair of blocks from the divided blocks,

(3) an index extracting unit that extracts two feature indices of a first color component and two feature indices of a second color component which differs from the first color component from the pair of blocks, one of the two feature indices being extracted from

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[2] *In re Bilski*, 88 USPQ2d 1385 (Fed. Cir. 2008).

one of the pair of blocks and the other of two feature indices being extracted from the other of the pair blocks,

(4) a code embedding unit that embeds a code into the pair of blocks, by changing at least one of the extracted two feature indices of the first color component of the pair of blocks based on a magnitude relationship between the extracted two feature indices of the second color component of the pair of blocks and a value determined by at least one of the extracted two feature indices of the second color component.

The closest prior art discovered is the combination of Reed (US-2002/0164052) and Matsui (7,523,311), as cited in the previous office action of 28 October 2009. The combination of Reed and Matsui teaches (1) and (2), as well as elements of (3) and (4). However, the combination of Reed and Matsui does not teach that (a) two feature indices are extracted for the first color component and two feature indices are extracted for the second color component, (b) one of the two feature indices are extracted from one of the pair of blocks and the other of the two feature indices is extracted from the other of the pair of blocks, and (c) the two feature indices of the first color component are based on a magnitude relationship between the two feature indices of the second color component.

Examiner has not discovered this particular combination of features in the prior art, either in a single reference or in an obvious combination of references. Accordingly, claim 1 is deemed to be allowable.

Claims 4-6 each ultimately depend from claim 1, and are therefore deemed to be allowable at least due to their respective dependencies from an allowable claim.

Independent claim 7 recites an image data processing method which contains the allowable subject matter found in claim 1. Thus, claim 7 is deemed to contain allowable subject matter for the reasons set forth for claim 1. However, claim 7 is rejected above under 35 U.S.C. 101, and is therefore not presently allowable. It could, however, be deemed allowable if the issues with respect to 35 U.S.C. 101 are adequately addressed.

Claims 10-12 each ultimately depend from claim 7 and are therefore also deemed to contain allowable subject at least due to their respective dependencies from claim 7.

Independent claim 13 recites a computer-readable medium that stores a computer program that, when executed by a computer, makes the computer perform a process. The process recited therein contains the allowable subject matter found in claim 1. Thus, claim 13 is deemed to be allowable for the reasons set forth for claim 1.

Claims 16-18 each ultimately depend from claim 13 and are therefore also deemed to be allowable at least due to their respective dependencies from claim 13.

Independent claim 21 recites an embedding unit which includes within it a series of units. The embedding unit of claim 21 contains the same allowable subject matter found in claim 1. Therefore, claim 21 is also deemed to be allowable.

Independent claim 22 recites a method of embedding a code into an image data in an image data processing method which contains the allowable subject matter found in claim 1. Thus, claim 22 is deemed to contain allowable subject matter for the reasons set forth for claim 1. However, claim 22 is rejected above under 35 U.S.C. 101, and is therefore not presently allowable. It could, however, be deemed allowable if the issues with respect to 35 U.S.C. 101 are adequately addressed.

Independent claim 24 recites a computer-readable medium that stores a computer program that, when executed by a computer, makes a computer perform embedding a code into image data. The process recited therein contains the allowable subject matter found in claim 1. Thus, claim 24 is deemed to be allowable for the reasons set forth for claim 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James A. Thompson whose telephone number is (571)272-7441. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on 571-272-7402. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James A Thompson/
Primary Examiner, Art Unit 2625

23 May 2010